Census data NS22 Tübatulabal NS22

511 for 1932 showed there was marked tendency among
177 younger women to leave area and seek education,
167 permanent employment in Los Angeles, Bakersfield; young men, on other hand, tended to remain within area; this was probably because opportunities for employment at home more favorable for men than for women. Altogether, although present economic status of Tübatulabal is low, especially in wintertime, yet they are not on the whole an indigent group, but continue to be economically independent, as before white contact.

BASIC SUBSISTENCE

[241] Tübatulabal hunting-gathering group; all forms agriculture lacking. Plant foods and game
511 formerly plentiful in valley-foothill regions
222 (all informants); foods most frequently mentioned
224 by informants are acorns and piñons, deer, rab-
226 bits, fish. No famine tales; among Tübatulabal plant-food resources better than in many parts of Calif. because this group had double access within w. and e. limits of area to acorns, central Calif. staple, and piñon nuts, Great Basin staple food. As piñons biennial crop, presence of acorns in area greatly augmented food resources. Furthermore, maturing of piñons and acorns is not simultaneous but successive, acorns following piñons, so that Tübatulabal could, and did, take advantage of both crops in early and late fall.

221 Yearly food cycle.- February to May. Mescal,
222 yucca whipplei stalks, tender immature pods of
224 tree yuccas, various bulbs obtained in lower
226 foothills and floors of valleys by individuals. Cached piñons, acorns being used. Large, small game hunted; geese obtainable in March. Fishing done by groups during April, from confluence of Kern and South Fork of Kern downstream (fig. 1). Family groups might also go W to Tulare lake to "eat ducks and fish" at this time.

May. Small seeds plentiful on floor, lower foothills of valleys; green pine nuts from Digger pine, juniper berries gathered in foothills;
[512] green plants gathered; "people went out in large groups, leaving houses early in morning, returning in evening" (MM). Cached acorns, piñons still being used. Large, small game hunted, especially rabbits, in valleys and foothills; occasional camp-hunting, bulb-gathering expeditions E across Sierras to Indian Wells valley and Mohave desert. Some fishing during early May in augmented Kern.

June. Some small seeds still available, depending on relative lateness of season; raw tule roots growing around springs eaten; wild tobacco growing in valleys pruned. Stores of cached acorns, piñons nearing depletion. Rabbit drives with nets in valleys; birds, large game hunted; little fishing as rivers in full flood from melting snows.

[251] July to middle of August. Season par excellence for drying commodities; roots of rush

221 dug near streams for drying; tobacco and salt
222 grass gathered on floor of valleys, cane for
●224 sweets at Cane creek; manzanita berries gathered
226 in mts. Fish corralled, dried; fishing at summer fish camps in canyon of unaugmented Kern after snow floods had subsided; mussels obtained near Kernville. Brush fired for rabbits on floor of valleys; communal antelope drive with Yokuts near Bakersfield in San Joaquin valley. Trading expeditions to Yokuts, Chumash at Tejon, Ventura.

Middle of August to September. Piñons gathered in lower borders of piñon areas; juniper berries gathered. Some fishing using fish poison as streams became lower; water too warm for much fishing in lower reaches of Kern r. Birds, small game trapped at piñon grounds; deer hunted.

September to middle of October. Piñons gathered and cached at higher altitudes, e. part of area; wild grapes gathered near Inyo-Kern in Indian Wells valley on return trip from piñon gathering; acorns gathered near hamlets. Small game, birds trapped at piñon grounds; deer hunted.

Middle of October to middle of November. Ripe Digger pine nuts gathered near hamlets and in Hot Springs valley; acorns gathered by women and cached in Greenhorn mts., around Poso Flat, and in Paiute mts. while men hunted deer at acorn grounds; "deer, rabbits fat at this time." Ducks obtained on rivers; fishing with fish poison on Erskine creek in Hot Springs valley. Trips made by families to Tulare lake to eat ducks and fish.

Middle of November to February. Life centered in hamlets; acorn, piñon caches, stores of dried fish, meat drawn upon. Fish speared in November and December from balsas on rivers; deer, rabbits, ducks, quail, etc., occasionally hunted, trapped. Individuals made trips across Sierras E [317 484] to Mohave desert to obtain rock salt from lakes which were in flood at this season.

262 Food preferences and rejections.- Of vegetable
824 foods oily varieties highly esteemed; among acorns which were staple food, oily or sweet varieties which required little leaching preferred. Buckeye nuts, obtainable in quantity on slopes of Kern r. gorge, "too bitter," although occasionally used. Of 2 varieties pine nuts gathered, nuts from piñon pine (referred to throughout as piñons) ranked second to acorns as staple; piñons which had been strung on native twine rated as delicacies; black piñon mush (p. 18) considered better than white. Among small seeds those of 2 varieties of Mentzelia referred to as being better than chia seeds "because they had more grease" (SM).

252 Niceties in matter of diet extended to prepara-
824 tion of food and tobacco. Special varieties of willows, Salix hindsiana Benth. and S. exigua Nutt., used to wrap up fish which were to be roasted, tobacco when it was to be cured, as these willows did not impart any odor to food. Digger [276] pine nuts, not piñons, mixed with tobacco "because they gave a better flavor" (FP, ES, SM).

[p. 11(b)]

262 Animal foods, hunting.- Wild game foods in-
136 cluded deer (tohi·l), antelope (yĭta'batal), mt. sheep (pa·'at), brown bear (mo'olohy) "which some people ate, some didn't like" (SM), mt. lion (tu··gu·kwĭt), wildcat (mupipi·t), raccoon (kata·l), jackrabbit (šu·'it), cottontail rabbit (tahpunt), wood rat (ha·wal), mice (cĭmil), gray squirrel (cawanĭnt), blue squirrel (šĭ'ĭgal), golden-mantled ground squirrel (pičili·t), small chipmunk-like ground squirrel (taba·yal), white-faced goose (pa·wili·gant), mallard duck (kula·bišt) which "stayed all year,--there were more of these than any other kind" (FP), blue-winged teal (obi··bu·l), canvasback duck (ku·wa·l), mud hens or American coot (ša·yal), mt. quail (tu·kt), valley quail (taka·h), band-tailed pigeon (mokowišt), dove (o·wi·t), blackbird (caki·bĭ·l), bluejay (a·gayibišt).

●224 Men hunting deer, other large game in mts.
776 usually went out in groups of 3-4 persons because of danger at night from White Coyote (Voegelin, 1935 b, 219); "one man who went out alone saw 4 white coyotes going up into the sky; they ran just as though they were running on the ground" (SM). Hunter out alone at night refrained from building fire lest White Coyote kill him. No especial feelings attached to white deer; "one man saw one once, up by Mt. Whitney, but wasn't afraid of it" (SM).

782 Night before hunters set out old man "who knew
[533] the songs" sang all night for hunters who might
224 also join in songs; this old man usually did not accompany hunting party; if successful, hunters gave him piece of deermeat when they returned. Hunters left homes at 2, 3 a.m.; "when they got up in the mts., they sat down, looked around"; if no deer sighted, within short while space
[237] cleaned off on ground, eagle down, tobacco and
276 beads put on it; "they gave this to the mts., and
301 when they did this they saw deer right away. Sometimes they just offered eagle down" (SM; Voegelin, 1935 b, 219).

224 Deer shot with sinew-backed bow, cane arrows;
411 at distance 600 ft. could hit, but not kill deer
825 (SM). Wounded deer often "had to be chased whole day"; was dispatched following morning as it lay
[349] resting. Small houses or blinds (panhamat) made of scrub oak with 6 in.-sq. peephole in one side, sometimes built along deer trails; as beater chased deer down trail past this blind, man stationed inside shot at deer through peephole. Deer-
[281] head decoy (to·go·išt) made of deer head stuffed with grass, with horns, neck hide left on, also used. Disguise made by removing flesh, brains, and bones from head and filling up head and neck with dirt, allowing it to dry before removing dirt. Hunter put decoy over head; did not paint body white in imitation of deer; when deer sighted, hunter crept up into bushes and with body concealed, only head showing, he "pretended to fight that bush"; quarry seeing this would approach hunter "wanting to fight him." Occasionally mt. lion would attack hunter wearing such a disguise.

224 Pits never dug to entrap deer or other large

224 Pits never dug to entrap deer or other large game; deer, antelope never corralled and killed; [231] large game never chased over cliffs; dogs not used for hunting (SM). Antelope chased by one hunter toward second man concealed behind bush or [349] pile rocks; Waterman has picture of pass where trail leads from South Fork valley to Kern valley, showing loose rocks which "are remains of small structure and pit, where lurking hunters shot antelope, which were run through the pass by beaters" (Mus. cat. no. 15-6258).

476 Once a yr. in July Tübatulabal joined with
224 Kawaiisu, Tejon, Ventura Indians, Yokuts for antelope drive (Kroeber, Handbook, 528) in Yokuts territory on plains near Bakersfield. As many as 500 men took part; in drive men stood in circle, 6 ft. apart; circle was from 2-4 mi. in diameter at beginning of drive; men walked inward, driving antelope before them; when circle had shrunk to a few hundred feet in diameter, 10 men (Kroeber, Handbook, 529, says 2 men from each tribe) stepped [411] inside, shot antelope with flint-tipped arrows. No antelope drives held in Tübatulabal area.

224 Mt. sheep shot with bow and arrow; "easier than deer to kill"; often sighted on rocky promontories along n. edge of South Fork valley, W of Onyx. Grizzlies and brown bears shot in summer with bow and arrows; never attacked in caves or shot from trees, but SM had seen latter done at Tejon. Mt. lions shot while on ground; killed after being treed.

476 Rabbits obtained on valley floors by firing
224 dry brush; 20 or more men stood in circle outside burning brush; as rabbits fled men shot them with bow and arrows. Another method was to use nets (wa·na·l), propped up loosely on sticks on level ground; 15-20 men formed straight line parallel to net 1/4 mi. or so away from it and advanced beating sagebrush with sticks, driving rabbits before them. When rabbits encountered net, vertical props fell down; rabbits became entangled and were clubbed with straight sticks or shot with bow and arrows; crescentic rabbit sticks not used. Those rabbits in rear that succeeded in jumping over fallen net became entangled in second net placed short distance ahead of first one. No boss for drive; rabbits collected, evenly divided by throwing each participant a rabbit until pile exhausted. Rabbits also shot by young boys, men, singly or in small groups, with bow and arrows.

224 Woodrats, squirrels, small birds trapped with rock trap (tõgo·'i·nit) exactly like Havasupai rodent trap (Spier, 1928, 113, fig. 4). For Tübatulabal trap shallow hole 3-4 in. deep dug between upright post and base of rock; acorn impaled on lower stick as bait; when stone slab fell, bird or rodent caught in hole underneath flat rock surface, but not crushed. Men set out 15-20 such traps, especially at piñon grounds during harvest; visited them every 2 days (SM).

224 Small willow blinds like Yokuts model (Kroeber,
349 Handbook, 524, pl. 45), but lacking stone platform, large enough to admit 2 men, built near

349 springs. In early morning 2 men hid inside blind;
●224 as birds, small game came to water one man shot them, other went outside to gather them in. This done chiefly on piñon expeditions. Traps, blinds, etc., used especially on camp-hunting expeditions, when men, women went E to desert in small groups to camp for week or so and gather food (SM; Voegelin, 1935 b, 211).

223 Waterfowl shot with bow and arrow; mud hens
[373] when very fat "couldn't fly; it was easy to shoot them" (SM). Lighted torches, made from sticks on which pitch had been smeared, waved under trees where quail roosting at night; as birds flew down they were easily clubbed. Inflammable brush never piled up and fired to attract waterfowl; live or stuffed birds not used as decoys.

252 Preparation of animal food.- Deer, other large game skinned while warm as it lay on ground; incisions made with stone knife as among Ha[illegible]pai (Spier, 1928, 111); skin removed with knuckles of closed hand; "not much fat left on hide when it was skinned this way" (SM). Entire deer utilized; meat, guts laid directly on live coals to broil; meat never eaten raw, preferred "half done." Bones
[887] roasted, cracked, and marrow extracted. Old people with few teeth given liver (nï·man), which they pounded in small mortars or on flat rock. Flesh of other large game also either broiled on coals or stewed in clay pots; birds gutted (not gutted, MM), and plucked, roasted in ashes or impaled on stick and roasted over fire. Rabbits skinned, gutted, and broiled on coals, roasted in ashes, or stewed. Raccoons, of which Tübatulabal "ate lots," squirrels, woodrats gutted, hair singed off, roasted whole in hot ashes. All small game removed from ashes with "any kind of a stick." Deer head roasted in pit oven (šo·li·l, hole). Hole dug in ground, sides and bottom lined with flat rocks heated on open fire; head, unwrapped, denuded of horns, put into pit, covered with hot flat rock and pit sealed with sand or earth. Pit
[177] opened 12-14 hours later; head generally put in around sundown, taken out and eaten next morning. Cow heads now occasionally roasted in this way.

226 Fish and mollusks.- Fish, both fresh and dried,
131 of importance in Tübatulabal diet. Obtainable in South Fork of Kern r., augmented and unaugmented Kern, streams such as Erskine creek, former lakes in South Fork valley, mt. lakes in hinterland. Fish (kuyu·l) included trout (ha'ayal), said to be native in mt. creeks (SM, FP), whitefish or bullheads (co·h), suckers (nimal), catfish (kana·ganan), minnows (ko'oši'). Whitefish caught in irrigation ditches 30 yrs. ago so large that "when a man carried one over his shoulders, the tail of the fish scraped the ground" (FM); MM said man could hardly lift some of fish caught in corrals (below) and FP commented on how large fish were formerly.

Fresh-water mussels (čono', twins), which Gifford suggests are probably Anodonta oregonensis,

159 After that he died. The mother of those 2
754 witches up at Onyx had put poison in his coffee.
674 He coughed, coughed, coughed all night; he got
756 thin and died after awhile. A long time after that wišimlīt's daughter-in-law, Tumasa, got sick; someone went and got Paiute Ramon. Ramon's friend came over here with him that time; he was a doctor, too. They were both Kawaiisu. Ramon worked on Tumasa and she got better. They told him about the rain machine. Doctors can tell where everything is; they see everything. Ramon told SM who had stolen his stepfather's machine. The thief had been watching Ramon doctor; Ramon pointed to him and said, "There he is; he's the one who stole your rain machine." The other doctor said, "He's right; he knows." Those doctors know everything; who is making you sick, or if you are a doctor, too, or if you have poison; everything.

159 Ramon started to lead that man over to the
756 place where the thief had hidden the rain outfit.
674 "Come on, show us where it is," the doctor told him. The man didn't want to go very much; he just stopped every little while. My husband was there. He got mad seeing that man take one or 2
[578] steps and then stop, and he hit him over the head with a shovel. The man didn't say anything; he just walked away; he wouldn't go with that doctor at all then.

425 A long time afterward another man found that
159 outfit; he said he would give it to Steban if he
756 would pay him $10 for it. But Steban wouldn't.
789 He should have though, then he could make rain now. The man who found it buried it somewhere else, in a dry place; it's there now. Bob Rabbit (a Kawaiisu) can make rain, too, but he says he doesn't want to make it any more. The people won't pay him anything for doing it. He says, "Let the country go dry."

159 But when they had those rain machines there
789 were lots of plants here then. And my husband
252 killed deer all the time; we always had deermeat. He was a good shot; he had a good rifle. The Indians used to use everything in a deer; they'd put the heart, liver, blood, all the guts inside the stomach lining and tie it up good and boil that up; it was fine. We never did that; just the oldtime Indians; but my mother's brother (a Koso) used to.

159 When my husband or my mother's brother hunted
782 deer they always gave the mts. beads and tobacco
224 and eagle down; they did that first, then they could kill all the deer they wanted. They gave the mts. little pieces of tobacco broken off the ball.

159 When Legora was about 11 yrs. old, one time
787 my father went over to Jose Chico's. He and
578 Jose got drunk; Jose talked badly to my father. "You're going on a good road (going to die)," Jose told my father. He was drunk when he said it.

159 My father came home. About a month later he
249 started working in the tobacco patch with my mother; they came down from Canebrake to work in

PERSONAL ANECDOTES

23. JOURNEY FROM TEJON

1. Once we came from Tejon to South Fork. 2. Already we (began to) come at six o'clock in the morning. 3. Straightway we came to the mountains. 4. "Don't you go there in the tall mountains, (there) are many bears," they say. 5. "Good," we say when it is being said. 6. I (am) with my wife. 7. We came on foot. 8. Then we came to the middle of the mountains. 9. At three o'clock in the afternoon we are already very thirsty. 10. There we are standing; (there is) no water (of) our bringing. 11. Then from there we looked down the canyon. 12. Then I saw cottonwood trees in the canyon. 13. Then I said to my wife, "I don't know but that water is standing there," I say. 14. From there we went toward the canyon. 15. We arrived there by the cottonwood trees. 16. Nothing; the water is dried up. 17. From there we took leave. 18. We are already very thirsty. 19. (It was) far away (before) we went and arrived in the valley. 20. Already it is getting dark. 21. From there we came toward Caliente, (which was) far away yet. 22. From there we had to go about twenty miles. 23. Already we are getting tired. 24. In spite of this, we are coming. 25. Then we came and arrived at Caliente; at eleven o'clock at night we arrived. 26. There we slept.

539X 484

24. DEER HUNT

1. Last summer I went and hunted from Yitiyam in the big mountains. 2. Then I went and arrived on top of the mountain. 3. From there I tracked the deer. 4. He went far away; he crossed the ridge in the canyon. 5. I am going (after) his tracks standing (there). 6. Far away he came out on the summit. 7. I am coming (after) his tracks standing (there). 8. There I came and found him while I was crossing the summit; the three-point buck jumped in front of me, interrupting me as I was going. 9. Then I, in a sitting position, aimed at him right away. 10. Far away he went and sat down half a mile (away). 11. Right away I shot well; in his heart I shot him. 12. He came and dropped down dead. 13. Then from there I went when I saw him. 14. There I skinned him. 15. Then I packed him. 16. From there I came toward home. 17. I (am) the one who packs the deer. 18. Then, "Good," says the old man, when he sees it, "pretty soon we get full," says the old man.

539X 224

25. FIESTA NEAR BISHOP

1. Once in Bishop I (am) the one who lived. 2. Then the fiesta got fixed. 3. Then I went from there; (there are) many people. 4. From every place people came. 5. Then they danced, and (there is) hand-game, and (there is) much gambling. 6. (There are) many people. 7. We are dancing every night. 8. (There are) many women; (there is) much copulation. Six days dancing occurred. 9. Then they quit their own dancing; from there they went and went, the people. 10. From there I went toward Bishop. 11. It is all.

539X 527

26. TRIP TO ISABELLA

1. Yesterday we went toward Isabella. 2. Then it is very hot; (there is) no wind. 3. Then we came back from there. 4. Then the wind blows on us when we return. 5. Then we arrived in our own house. 6. Then we ate when we arrived. 7. Then, having finished eating, I went from there toward Chogil's. 8. Then the wife of Chogil is cooking when we arrived. 9. Then Chogil fed us again. 10. Then from there we came back. 11. Then we ate again when we arrived. 12. Then we got very full. 13. Then I did not yield to my own sleep when I was full. 14. Then, when it was the middle of the night, I slept.

539X

3: Voegelin E-5 (1931-1933) 1935
NS22 Tubatulabal NS22

857
152. Then that one, that one who hides it, is shooting next. 153. Then he is shooting that 539 X
target. 154. Then they are paying him one arrow. 155. Then some are going back to their 159
own houses without their own arrows, when losing. 526

156. Then from there again we are playing another game—red clay. 157. We are making 539 X
dolls, we are building everything, coyotes and also bears, wolves, and also people; we are
doing everything all the time. 158. When making that red clay into dolls, we then put that 159
already made doll in the heat. 159. Then from there when drying, it is getting hard. 160. It 524
lasts a long time. 857

161. Then from there we are playing another game again, the hide game. 162. Then we 539 X
are putting one boy (to be "it"). 163. We are tying his eyes with a rag. 164. Then he is 159
seeing nothing. 165. Then from there, having finished tying him, we are all hiding. 166. 526
Then he is looking for us. 167. "Where are you?" he is saying. 168. "This way," we are 857
saying. 169. Then he is coming running. 170. Then some are coming in his tracks. 171. Then
he takes a jump backward. 172. Then he is grabbing one (boy). 173. Then that one does
the same next.

174. Then we never play again. 175. Then we used to hunt deer all the time, it being 539 X
summer. 176. Then, also, we are going camping. 177. From there we used to hunt deer. 159
178. And also from there we are going fishing in the north fork. 179. We are catching many 224
fish, trout, and also bullheads. 180. Then we are making "jerky"; we are drying (the fish). [251]
181. Then, also, from there again, we are going fishing the next day. 182. Then also we are 226
again making those (fish) into "jerky." 183. And also we are again hunting deer. 184. We
are hunting every day. 185. Then after staying there five days, we are coming back from [464]
there, we are coming toward our own home. 186. Then also, upon arriving, we are working
again when we find those jobs (on the ranches of white men).

187. Then also, from there again, in another summer, we are going to gather pine nuts. 539 X
188. We are all going and gathering, my mother, too (she did not go on the previous hunt- 159
ing and fishing trip)—we all, and also again many different people not our relatives (but) 222
different people. 189. (There are) many people. 190. Then they fix blackened pine nuts in 857
the evening. 191. Then we used to kill deer. 192. Then we are staying there all summer
gathering pine nuts. 193. We are gathering one sack every day. 194. And also we are roasting
the raw ones; we are gathering (them) when they fall down. 195. We used to gather (them)
every day. 196. From there we are coming back, the pine nuts being already exhausted.
197. Then we are packing the pine nuts. 198. All the many pine nuts were packed by us,
perhaps twenty sacks. 199. Then when all are coming back toward their own homes, we
are packing (the pine nuts). 200. It being winter, we used to eat that, blackened pine nuts, [262]
and also rabbit with acorn gravy, and also everything (else), deer, fish, everything, we
used to eat. 201. (There are) many acorns; we used to gather those too. 202. It being
autumn already when they are falling, we are going and gathering the acorns. 203. Then
already many are falling. 204. Then we are shelling those acorns. 205. Then our mother is [252]
drying (them). 206. Then when they are drying, she is going to pound (them) in the pit
mortar. 207. Then, having finished pounding that, she is leaching it in the leaching place
(a hole in sand on the edge of a stream). 208. Then, when going to leach it, she is irrigat-
ing it until noon. 209. Then from there she is gathering that up. 210. Then she is stirring
that in the clay pot. 211. Then she is bringing that toward the house. 212. We are eating
that for some time without bread. 213. We are eating acorn gravy nearly all winter.

214. Then from there my father made a fiesta. 215. First he called the Yokuts. 216. "I 539 X
shall make a fiesta," he is saying, "and all of you come in future," he is saying, "on that 159
day," he is saying; "then we will enter upon it together when I make (fiesta)," he is 527
saying; "pretty soon in five days we will make fiesta," he is saying. 217. Then from there [225]
they all arrived there on the day. 218. They all entered upon it together. 219. Then the
clown is saying "Pretty soon we shall gamble," he is saying, "and also the hand-game 624
(will be played)," he is saying. 220. "Good," the people are saying. 221. Then they
gambled that night. 222. For two or three nights they gambled. 223. Then the clown

[P. 52a] Tubatulabal NS22

known. The clapper (tawa´tw:l) and cocoon rattle (sa´nač) were used. The musical bow was known to the Southern Yokuts, Choinimni Yokuts, and probably northward throughout the foothills as it is reported from Western Mono, Miwok, and Maidu.[131]

Hunting.---P.M.'s father was a fine hunter; Cougar was his dream helper. When P.M. was about fifteen years old, his father took him hunting. Sinew-backed bows were bought from Pitanisha (Tübatulabal) living near Kernville. But plain bows of elderwood [? he claimed] were made at Sototlo. Arrows were of button willow tipped with a white-oak point, or of obsidian if for deer.

The deer disguise was made of the complete head, antlers, and skin. The head was stuffed with grass. The wearer leaned on two sticks to imitate the animal, and with them would crash about in underbrush to simulate fighting deer.

Bears were lured out of their caves by a fast runner, and shot by two or three good hunters waiting in ambush.

After the killing of an especially large deer or bear, the animal's head was sprinkled with eagle down. P.M. never heard of selling bear paws or skin to someone with a bear totem. He thinks bear was not a totem animal for any one at Sototlo.

In dividing up a carcass, the man who took the skin did not receive any meat. Men did tanning of hides.

The pigeon booth from which birds were snared is probably native to this region, as well as northward along the foothills, although that seen and illustrated by Holmes was on the Tule River Reservation.[132]

Tobacco.---Tobacco (so´gon) was drunk with lime. The preparation was like that elsewhere: the cakes of dried leaves were pounded with a small mortar (koi´wos) and pestle (pa´lwi), crushed shells (ta´sap) were added, and water was stirred in. It was taken in the evening by persons of either sex who were at least twenty years of age; the purpose was to aid dreaming. Crushed tobacco was smoked in a cane pipe (ha´la) or an elderwood pipe (wi´se´ta, elderwood). Tobacco was made in the usual two cake forms, so´gon and politsi´na, but of the latter P.M. could only say that it was stronger and molded in the usual cylindrical shape.

Tinder.---Oak balls contained a shreddy, corklike substance called ye´aka, which was used as tinder in making fires and lighting pipes.

Medicine.---Redwood sap (ta´nal) was shaved up in a pot of hot water. A person with a wound which bled profusely steamed himself with this under a blanket; a woman who had given birth also used it in this way. A little of

[131]Ibid., 419, 542; Barrett and Gifford, 250; Wobonuch Western Mono, herein, Pt. II.

[132]Anthropological Studies, pls. 31, 32.